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**Los Alamos
National Laboratory**

Risk Reduction and Environmental Stewardship Division

**Integrated
Management
Plan**

for the

**Environmental
Protection
Program**

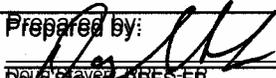
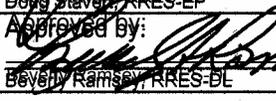
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Appendices

This plan has the following appendices:

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A	Organization Chart	1
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History of revision

This table lists the revision history of this plan.

Revision	Date	Description Of Changes
0	5/16/02	New document.
1	2/18/03	Revised chapters on ALARA and Data Management.

Section 1

Quality Program

Organization

Introduction The Integrated Management Plan for the Environmental Protection Program (EPP-IMP) specifies how the Risk Reduction and Environmental Stewardship (RRES) Division manages the institutional process of developing, implementing, and assessing environmental protection policy and standards within the Integrated Safety Management System (ISMS, LA-UR-98-2837) at LANL. For the purpose of this document, the environmental activities described in this Plan are referred to as the Environmental Protection Program (EPP). The specific roles and responsibilities for implementation of the EPP are described in this plan.

Program mission The EPP supports the LANL mission by providing cost effective environmental protection services that are designed to enhance the scientific and engineering work of LANL.

- We protect the public health and environment by implementing rigorous compliance programs designed to assure institutional compliance with state and federal environmental protection regulations..
- We protect the public health and environment by the measurement, assessment and reduction of risks caused by exposure to LANL derived hazardous materials.
- We protect the designated uses of the Laboratory's natural resources by continuing to improve our understanding of these natural systems and by applying sound ecological and engineering principals towards mitigation of the Laboratory's impact.
- We protect human health and the environment during emergencies by assuring technical capabilities are available to measure and evaluate unplanned releases of hazardous materials into the environment.
- We protect cultural and historical sites as valuable Laboratory properties.

We conduct these activities within the management framework of ISMS and in an atmosphere of openness with our surrounding communities.

Regulatory/contractual drivers The drivers for the development and implementation of the EPP are:

- Appendix G of the University of California (UC) Contract with specific requirements described in the Laboratory Performance Requirement LPR 404-00-00 "Performance Requirements: Environmental Protection."

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- Other drivers** Other drivers of the EPP include:
- RRES Division commitment to improve service delivery and customer satisfaction.
 - UC commitment for outstanding relations with stakeholders and neighbors in Northern New Mexico.

Organization The RRES Division Leader (RRES-DL) has overall responsibility as Office of Institutional Coordination (OIC) for LPR 404-00-00 and thereby has lead responsibility to manage and coordinate the EPP at the Laboratory. The RRES-DL provides senior management leadership and oversight of the development, approval, and implementation of institutional environmental policy, targets and objectives, work standards, and performance metrics as they relate to environmental protection. The Program Manager for Environmental Protection (RRES-EP) reports to the Division Leader and is responsible for the overall performance of the Environmental Protection Program. The Program Manager also serves to coordinate and implement the EPP-IMP. Groups within RRES Division report to the RRES-DL and serve as OICs according to the standards described in this Plan and by the ISMS. The Safety Function Manager for Environmental Protection is appointed by the Director of the Laboratory and serves an assessment function as described in the ISMS Description Document (LA-UR-98-2837).

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- OIC Responsibilities** The following RRES Groups have specific OIC responsibilities derived from LPR 404-00-00:
- RRES-MAQ – OIC for the Air Quality Section of LPR 404-00-0.0
 - RRES-WQH – OIC for the Surface and Groundwater Section of LPR-404-00-0.0.
 - RRES-SWRC – OIC for the following paragraphs in the Managing Waste Section of LPR-404-00-0; 1.2.1 Managing Waste, 1.2.2 Solid Waste, 1.2.7 PCB Waste, 1.2.9 Mixed Waste, and 1.2.10 USTs.
 - RRES-ECO – OIC for Ecological and Cultural Resources Section of LPR 404-00-00.

Implementation The following table lists specific responsibilities.

Who	What
RRES-DL	<p>Provides senior management leadership to the integrated program of environmental protection at the Laboratory.</p> <ul style="list-style-type: none"> • Senior line manager responsible for implementation of the EPP-IMP. • Approves the EPP-IMP. • Serves as Office of Institutional Coordination for LPR 404-00-00. • Assure technical capabilities are recruited on support of the EPP. • Acts as an advisor and proponent to the Senior Executive Team (SET) regarding goals and objectives for the EPP. • Recommends (to SET) institutional environmental policy.
RRES-EP	<p>Responsible for the overall performance of the EPP and provides coordination, funding, and implementation support for the EPP-IMP.</p> <ul style="list-style-type: none"> • Responsible for assurance programs regarding the institutional implementation and assessment of environmental protection functional areas identified in LPR 404-00-00. • Approves and assures implementation of the EPP-IMP. • Provides overall direction and program management of the EPP. • Prioritizes and recommends (to RRES-DL) the Laboratory's environmental goals, objectives, and performance metrics, including Appendix F related to the EPP. • Responsible for the overall budget of the EPP. • Acts as the institutional body to improve customer (line, Department of Energy (DOE), community/pueblo, and regulatory agency stakeholders) satisfaction with the EPP. • Acts to facilitate the resolution of issues that arise with the implementation of the EPP.
Safety Function Manager for Environmental Protection	<p>Assesses and reports semi-annually on the performance of the institutional EPP as described in the ISMS Description Document (LA-UR-98-2837).</p>

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Who	What
RRES OIC Group Leader	<p>In the capacity of environmental OIC for area of functional responsibility as described in LPR 404-00-00 and in the framework of the ISMS and this Plan:</p> <ul style="list-style-type: none">• Provide institutional interpretation and policy development for environmental protection statutes, regulations, and DOE Orders.• Coordinate the development of compliance and stewardship/sustainability objectives, goals, and performance metrics for review and approval.• Provide leadership for the development, implementation and documentation of institutional environmental protection assurance programs designed to meet compliance and stewardship objectives/sustainability objectives.• Develop and document institutional processes and systems that support the five-step ISMS process with clear roles and responsibilities for all assurance programs that implement the EPP.• Provide institutional performance feedback to line management.• Serve as institutional point of contact with regulatory agencies/stakeholders/public and DOE regarding environmental protection and stewardship programs.

Quality System and ISMS Integration

EPP Policy The EPP quality system operates within the framework of the RRES Integrated Management System and enhances the implementation of environmental protection standards at the Laboratory. The EPP quality system contains a hierarchy of documents that describes environmental protection work processes, roles and responsibilities, and improvement mechanisms.

Document hierarchy The EPP quality system is controlled by a system of documented plans and procedures that guide environmental protection work at the Laboratory.

- The EPP-IMP will serve as the upper level document that contains high-level policy and standards descriptions, institutional work processes, and roles and responsibilities for those groups in the RRES Division.
- Quality Management Plans at the Group Level may be used as needed.
- Quality Assurance Project Plans (QAPPs) (if needed for specific assurance programs) will describe project level implementation of the EPP-IMP.
- Implementing procedures (for specific work activity instructions) can be attached to the EPP-IMP if required to describe institutional-wide work standards or attached to specific QAPPs for more limited work process descriptions.

ISMS expectations will be integrated into all documents in this hierarchy to assure that all work follows the principles of the ISMS.

Revising and distributing this plan The RRES-EP Program Manager is responsible for all revisions and distributions of this plan.

Implementation The following table lists responsibilities.

Who	What
RRES-EP	Assure development, maintenance and implementation of the IMP by <ul style="list-style-type: none">• Approving this plan.• Assuring this plan is incorporated into a controlled document system and all revisions to this plan are reviewed and distributed to affected organizations.• Assuring that all documents in support of this plan are in a controlled document system.

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Who	What
RRES OIC Group Leader	Assure implementation of this plan within their area of responsibility by: <ul style="list-style-type: none">• Approving this Plan.• Participating in the development and revisions of this Plan.• Implementing the standards identified in this Plan.

Section 2

Personnel Training and Qualification

Personnel Recruitment

EPP Policy All EPP personnel are qualified through a combination of education, experience, and training to perform their assigned tasks. The Division recruits a diverse workforce adhering to the Laboratory personnel system (Human Resources Division) policies and procedure for hiring.

Implementation The following table lists additional responsibilities for EPP.

Who	What
RRES-DL and OIC Group Leader	<ul style="list-style-type: none">• Establish and document job descriptions for each position including education and skills, knowledge and abilities that are required for each job.• Review and select qualified candidates from applicant pool provided by HR organization. Review and consider applicant pool based on diversity assessments and needs.

Personnel Training and Professional Development

EPP Policy The Division implements a training system that ensures that employees receive the necessary skill and knowledge requirements to fulfill their EPP and institutional work responsibilities. The workforce has the appropriate level of experience, knowledge, skills and abilities to effectively conduct their responsibilities. New division employees receive orientation and training to meet their respective job duties, responsibilities and authorities. When changes in job assignments are made, re-orientation and training are conducted as necessary. Each employee has an assigned training plan documented and maintained at the group level.

Implementation The following table lists additional responsibilities for EPP.

Who	What
RRES OIC Group Leader	Ensures that new employees receive orientation and training to achieve their respective job assignments. Ensures all employees have a current training plan (in the LANL Employee Development System, EDS) that identifies all their training requirements.

Training standards for non-RRES Division Employees

RRES EP Policy EPP assurance programs sometimes depend on non-RRES Division employees to conduct specific work activities in support the EPP assurance functions. The OIC for the specific EPP assurance program identifies minimum training requirements for non-RRES Division employees in the QAPP (or underlying documents) and in any LIRs developed for the assurance program. Training requirements are documented in the EDS.

Implementation The following table lists additional responsibilities for EPP.

Who	What
RRES OIC Group Leader	Identifies general environmental program training requirements for the institution. Identifies minimum training requirements for assurance activities conducted by non-RRES Division employees. Communicates to non-RRES Division employee's line management for training responsibilities. Ensures that general environmental protection training requirements are included in HR training programs for managers.

Section 3 Quality Improvement

Performance Metrics

EPP Policy Metrics are developed to measure the performance of OIC managed assurance programs. Performance metrics are reviewed on an annual basis. Metrics will also be developed to measure progress toward the goals and objectives of the EPP. When applicable, the metrics are developed in coordination with HSR-Performance Indicator Office, line support teams, and line management of impacted organization. Overall performance of the EPP is measured and reported to RRES-DL, RRES-EP, and the Safety Function Manager for Environmental Protection on a semi-annual basis.

Implementation The following table lists responsibilities.

Who	What
RRES-EP	<p>Provides overall coordination and development of metrics to measure the performance of the EPP.</p> <p>Recommends and coordinates with the OIC to develop specific metrics to measure the performance of assurance programs.</p> <p>Develops, in coordination with HSR-Performance Indicator Office, a set of annual performance metrics to be reported to institution.</p>
RRES OIC Group Leader	<p>Develops in coordination with RRES-EP a set of OIC-specific metrics that will measure performance of the applicable assurance program.</p> <ul style="list-style-type: none"> • Provides resources to routinely measure and report on metrics. • When assurance programs rely on personnel/activities external to the RRES-OIC, develop metrics in coordination with other Lab entities responsible for the performance metrics.

Deficiencies and Corrective Action

EPP Policy RRES Division personnel will take action when a deficiency (failure to meet external or internal requirements in laws, regulations, or requirements documents, including safety issues or accidents) is found. This action may include immediate correction of the deficiency. All deficiencies must be reported according to OIC group level requirements, verbally or in writing, to the group leader. Group management will take timely action to correct deficiencies. Group leaders will document deficiencies and their correction. These data will be used to identify systemic weaknesses in quality management.

Implementation The following table lists responsibilities.

Who	What
RRES OIC Group Leader	Fosters an atmosphere in which deficiencies are reported and corrected. Ensures deficiencies are documented. Periodically reviews deficiencies for trends or systematic problems and implements any appropriate management corrections.
Project or team leader	Ensure that level of deficiency documentation and corrective actions is appropriate by considering how a deficiency: <ul style="list-style-type: none"> • affects completeness, cost, or quality of work • affects project goals, deliverables, or schedules • represents unacceptable equipment or supplies • represents an opportunity for quality improvement. Reports relatively serious deficiencies at a project leader meeting.
All employees	Identifies any deficiencies and report them to the project, team or group leader. Describes how work or products were affected.

Section 4 Documents and Records

Quality Assurance Project Plans

EPP Policy Quality assurance project plans (QAPPs) are developed as needed to assure all environmental protection requirements identified in LPR 404-00-00 (“Environmental Protection”) are implemented through the EPP quality system and ISMS. OICs for LPR 404-00-00 are responsible for the development and implementation of QAPPs. QAPPs specify the assurance methodology, roles, responsibilities, records, and performance metrics for that program. Any QAPP that requires environmental data collection will have documented data quality objectives (DQO).

Implementation The following table lists responsibilities.

Who	What
RRES-DL	Assigns OIC responsibility for all requirements identified in LPR-404-00-00.
RRES OIC Group Leader	<p>Documents assurance programs in a QAPP that contains the minimum specifications:</p> <ul style="list-style-type: none"> • Description of all critical work processes conducted in order to assure demonstration of compliance with standards. • Description of the roles and responsibilities for those processes – if roles and responsibilities are identified for non-RRES personnel, describe the following; <ul style="list-style-type: none"> How work instructions will be communicated and controlled (e.g., LIRs). Assurance mechanisms (e.g., assessments). Recordkeeping requirements. • Description of the technical or regulatory basis of the program. • Description of records and document control processes to assure that compliance is demonstrated. • Description of performance metrics for the assurance program.

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Who	What
	<ul style="list-style-type: none">• For programs that require environmental measurements and samples, documents the Data Quality Objectives and sampling methodology for that program.• Assure QAPPs that are related to compliance with environmental statutes and regulations are reviewed by LANL Legal.

Records and Document Control

EPP Policy EPP OICs identify and maintain environmental records and provides for the processing, protection and retrieval of records according to LIR 308-00-02, Laboratory Records Management. Records are identified in QAPPs and supporting procedures. Documents are controlled to provide users with the most current revision to which work is performed.

Implementation The following table lists responsibilities.

Who	What
RRES OIC Group Leader	Assures the requirements contained in LIR 308-00-02, Laboratory Records Management, are applied to RRES Division's records. Assures that records applicable to any compliance assurance program are identified in applicable QAPPs and supporting procedures. Assures the development and implementation of documented systems that provide controls for identification, acceptance, processing, protecting, retention, and retrieval of records in accordance with LIR 308-00-02. Assigns a Records Management Point-of-Contact.

Laboratory Implementing Requirements

EPP Policy Laboratory Implementing Requirements (LIRs) are developed when needed (and as approved by the Laboratory) to provide requirements to other Laboratory organizations regarding environmental protection assurance programs.

Implementation The following table lists responsibilities.

Who	What
RRES-DL	Reviews and approves environmental LIR requests by the environmental protection groups.
RRES-EP	Assures integration of requirements in LIRs across the EPP.
RRES OIC Group Leader	Determines need for LIRs. Follows Laboratory requirements for LIR publication. Interacts with other environmental OICs and determines if new LIR can be integrated with existing LIRs.

Integrated Resource Management Plan (IRMP)

EPP Policy LANL implements the IRMP within the framework of the EPP-IMP and the ISMS system. The IRMP implementation plan establishes institutional strategic objectives for stewardship of natural and cultural resources. The implementation plan will identify a process for setting stewardship goals/objectives, provides trade-off assessment, prioritization, and establishing performance measures, and identifies roles and responsibilities of various organizations.

Implementation The following table lists responsibilities.

Who	What
RRES-DL	Approves the IRMP Implementation Plan
RRES-EP	Assures the implementation of the IRMP within the framework of this Plan and the ISMS system. Obtains funding for implementation.
RRES-ECO	Prepares the IRMP implementation plan.

Ten Year Comprehensive Site Plan (TYCSP)

EPP Policy Environmental program planning is integrated with the TYCSP. The IRMP and the TYCSP uses a common description of the baseline environmental conditions. The Annual SWEIS Yearbook and the TYCSP use a common definition of commodities (e.g., gas, electricity, and water) consumed in a given year and a common set of numbers. The SWEIS Yearbook uses the TYCSP's table of prioritized projects in a section discussing future actions.

Implementation The following table lists responsibilities.

Who	What
RRES-ECO	Provides overall coordination between the TYSCP and EPP objectives. Assures IRMP text and Yearbook tables are consistent with the TYSCP.
RRES- OIC Group Leader	Reviews the TYSCP for OIC planning..

Environmental Surveillance Report

EPP Policy An Environmental Surveillance Report (ESR) is prepared for DOE/NNSA on an annual basis to meet the requirements of DOE Orders 231.1 and 5400.1, and DOE Policy 450.1. The ESR is prepared according to a procedure to assure timelines and quality specifications are met.

Implementation The following table lists responsibilities.

Who	What
RRES-EP	Approves the ESR.
RRES OIC Group Leader	Assures that ESR sections, data, and data analysis meet requirements in DOE Orders, Environmental Monitoring Plan, and the EPP-IMP. Ensure adequate resources and personnel are provided to meet technical, cost, and schedule requirements.
RRES-ER	Prepares sections related to legacy waste cleanup progress (RCRA corrective actions) and compliance with RCRA.
RRES-PP	Provides status of waste minimization and pollution prevention activities.
RRES-MAQ	Prepares sections and data related to air quality and air resources appropriate regulatory summary sections. Sections include information covering radiological airborne effluents monitoring, ambient air monitoring, meteorological monitoring, and external penetrating radiation monitoring.
RRES-HWQ	Prepares sections related to water resources (surface and groundwater). Sections include information covering liquid effluent monitoring, safe drinking water monitoring, surface water monitoring, groundwater monitoring, and sediment monitoring.
RRES-SWRC	Prepares sections on annual status of compliance with hazardous and solid waste, underground storage tank, and PCB management regulations.
RRES-ECO	Prepares technical sections covering soil, foodstuffs, and biota. Coordinates compilation, publication, and distribution of the ESR. Prepares summary sections and correspondence. Coordinates review and comment resolution processes. Obtains DOE/NNSA approvals. Coordinates initial distribution of ESR. Attends annual DOE HQ environmental surveillance report roundtable meeting.

Environmental Monitoring Plan

EPP Policy An Environmental Monitoring Plan is prepared and maintained that contains the rationale and design criteria for the environmental monitoring program, extent and frequency of monitoring and measurements, procedures for laboratory analyses, quality assurance requirements, program implementation procedures, and direction for the preparation and disposition of reports. The plan will include (a) effluent monitoring and (b) environmental surveillance. The plan is reviewed annually and updated every three years.

Implementation The following table lists responsibilities.

Who	What
RRES-DL	Approves the Environmental Monitoring Plan revisions.
RRES OIC Group Leader	Assures that Environmental Monitoring Plan sections meet DOE Order 5400.1 requirements and that monitoring plans meet applicable requirements.
RRES-ECO	Maintains and publishes the Environmental Monitoring Plan. Prepares introductory section and appropriate regulatory summary sections. Prepares sections covering soil, foodstuffs/biota, and biological resources monitoring.
RRES-MAQ	Prepares appropriate regulatory summary sections. Prepares sections covering radiological airborne effluents monitoring, ambient air monitoring, meteorological monitoring, and external penetrating radiation monitoring.
RRES-HWQ	Prepares appropriate regulatory summary sections. Prepares sections covering liquid effluent monitoring, safe drinking water monitoring, surface water monitoring, groundwater monitoring, post-fire monitoring activities and sediment monitoring.

Section 5 Work Processes

Regulatory Policy and Applicability

EPP Policy Periodic institutional applicability determinations are conducted for regulations promulgated by Federal and New Mexico State environmental protection statutes and by DOE Order. Regulatory applicability determinations are peer reviewed by LANL Legal and documented by the OIC for that requirement. Work control processes (ESH-ID, work control, etc.) are used to identify environmental hazards in Laboratory work that may require environmental permitting or other mitigation. All applicability determinations conducted on Laboratory operations are peer reviewed and documented. Written or verbal testimony/comments on new regulatory initiatives are peer reviewed by the RRES-DL, EP, and Lab Legal.

Implementation The following table lists responsibilities.

Who	What
RRES OIC Group Leader	<p>Assures timely environmental protection regulatory applicability determinations of LANL operations by:</p> <ul style="list-style-type: none"> • Reviews of regulatory registers and new regulations, within OIC responsibilities, to determine LANL applicability. • Coordinates and document regulatory applicability determinations with LANL Legal. • Assures requirements are addressed in documented assurance programs in applicable area of responsibility as defined in this document. • Reviews and evaluate work identified in Laboratory work control processes for environmental hazards. • Coordinates (with line management) the mitigation of environmental hazards for applicable operations. • Ensures timely notification of LANL operations and facility personnel of applicable requirements. • When requested, provides written or verbal testimony/comments on new environmental protection regulations or standards. • Assures RRES-DL, EP, and Legal approval of written or verbal testimony/comments on new regulations.

Environmental Protection Program Goals and Objectives

EPP Policy The RRES-EP, in coordination with the OICs, maintains a list of goals and objectives designed to accomplish the mission of the EPP. On a semi-annual basis, EPP goals and objectives are analyzed and prioritized using documented procedures. Progress toward meeting the goals and objectives are assessed and communicated to the RRES-DL. In addition, every six months, the RRES-EP in coordination with the OICs analyzes progress toward the implementation of the EPP and identifies significant environmental issues that require focused management attention (as per ISMS, LA-UR-98-2837). These issues are communicated to the Safety Function Manager and compiled in a report. Issues in the SFM Report are prioritized and goals, targets, and objectives developed for each issue.

Implementation The following table lists responsibilities.

Who	What
RRES-DL	Provides senior manager oversight and leadership in the development, tracking and resolution of environmental protection goals and objectives. Specifically: <ul style="list-style-type: none"> • Reviews quarterly progress reports produced by the RRES-EP and provide improvement feedback. • Reviews and provides input into the semi-annual Safety Function Manager Report. • Makes recommendations to SET regarding institutional goals, targets and objectives. • Reviews and provides input into funding profiles and project plans and track progress toward meeting goals, targets and objectives.
RRES-EP	In coordination with the OICs, provides program management toward the development of integrated goals and objects of the EPP. <ul style="list-style-type: none"> • Coordinates (with the OICs) the development and maintenance of the EPP list of goals and objectives. Receives input from the RRES-DL. • Develops (with the OICs) a quarterly report that describes progress toward meeting EPP goals and objectives. • Develops funding profiles for better meeting EPP goals and objectives. • In coordination with the RRES-OICs, initiates and reviews the semi-annual Safety Function Manager Report input. Receive input from the RRES-DL.

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Who	What
RRES OIC Group Leader	<p>In coordination with the RRES-EP, develops a list of OIC-specific goals and objectives for the applicable area of responsibility.</p> <ul style="list-style-type: none">• On a quarterly basis, provides input regarding progress toward goals and objectives.• On a semi-annual basis, provides OIC input toward the development of the Safety Function Manager Report.
Safety Function Manager	<p>Compiles Safety Function Manger report as per ISMS, LA-UR-98-2837.</p>

Compliance Assurance Programs

EPP Policy Environmental Protection requirements identified in LPR 404-00-0.0 have documented assurance programs that clearly identify how the Laboratory complies with those requirements. OICs for LPR 404-00-0.0 are responsible for institutional coordination and documentation of assigned assurance programs. Each assurance program is documented in a Quality Assurance Project Plan (QAPP), as needed, following the standards outlined in this Plan. Each QAPP is peer reviewed by LANL Legal and organizations that have shared responsibility to implement the program. The documentation for each assurance program is sufficiently detailed to identify the critical work processes required for compliance, the roles and responsibilities for those work processes, the records required for assurance, and performance metrics for the various work processes. Any assurance program that requires environmental measurements documents the Data Quality Objectives of that program.

Implementation The following table lists responsibilities.

Who	What
RRES-DL	Assigns OIC responsibility for all requirements identified in LPR-404-00-00 to RRES Groups.
RRES-EP	Reviews and provides input into all EPP QAPPs. Signs all QAPPs and assures adequate funding for the implementation of the assurance QAPPs.
RRES OIC Group Leader	<p>Provides leadership and management for the development, coordination, and implementation of assigned assurance programs. Assures program development in coordination with:</p> <ul style="list-style-type: none"> • RRES-EP. • Line managers, ESH-Line Support Teams and/or Facility Managers (if applicable) of impacted organizations. • LANL Legal. <p>Describe the assurance program in a QAPP that follows the specifications identified in the section 4 <i>Quality Assurance Project Plans</i>.</p>

Environmental Permitting

EPP Policy RRES Division OICs help Laboratory operating entities apply for, negotiate, and comply with environmental permits and permit-like actions as required by State and Federal statutes. The OICs will provide laboratory operations with solutions allowing needed operational flexibility while minimizing costs for maintaining compliance. Emission limits will be proposed that reflect the needed operational flexibility and minimize the Laboratory's impact on the environment.

Implementation The following table lists responsibilities.

Who	What
RRES-DL	Co-signs all environmental permit applications when the permit conditions require ES personnel to perform some level of activity to assure compliance with the permit. Obtains other signatories as appropriate to assure operating line management knowledge and responsibility for compliance with permit terms. Obtains higher-level signatory responsibility for institutional-wide permits.
RRES EP	Reviews all draft permit application as part of internal peer review process.

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Who	What
RRES OIC Group Leader	<p>Assists operating groups obtain necessary permits to protect the environment by:</p> <ul style="list-style-type: none">• Representing LANL and affected operating groups during negotiations with State and/or Federal regulators.• Preparing permit applications for LANL-owned equipment and processes according to prescribed regulatory requirements.• Promoting methods for control technology and pollution prevention and advise operating entities of pros and cons of such systems.• Ensuring internal peer review of all draft permit applications before review by affected operating groups and facility managers.• Ensuring affected facility and operating group review of permit application and incorporate relevant comments.• Ensuring that programs are in place that demonstrates compliance with permit requirements. The level of program may be at the activity level up to the institutional level, commensurate with the breadth of the permit.• Ensuring programs are in place to evaluate contractor-owned equipment and activities to ensure that appropriate permitting activities are completed in accordance with the requirements.

Environmental and Effluent Sampling

EPP Policy Environmental and effluent sampling and data collection techniques follow prescribed regulatory requirements and applicable DOE Order guidance. Where applicable, industry standards and best management practices are used. The DQO process, as described in, or similar to, EPA QA/G-4, is used for all environmental and effluent sampling programs to establish the operating parameters. The DQO process and resulting operating parameters are documented in the applicable QAPPs for the sampling program.

Implementation The following table lists responsibilities.

Who	What
RRES OIC Group Leader	<p>Develops and documents DQOs for environmental and effluent sampling and data collection according to guidance in “Guidance for the Data Quality Objectives Process EPA QA/G-4, September 1994”. Uses the operational parameters developed using the DQO process in developing the QAPP for the program. All environmental and effluent sampling and data collection programs will include specifications for</p> <ul style="list-style-type: none"> • Accuracy, precision, completeness, representativeness, and comparability. • Sample identification number, location, location name, and coordinates. • Sample date/time. • Sampled media. • Type of sample (routine, duplicate, etc.) • Analytical method/instrumentation. • Detection limit. • Sample result. • Sample uncertainty. • Sample qualifier (accept, reject, qualified). • Field and laboratory comments. • Data status (the data approved for release final or preliminary). • QA/QC samples/processes. • Chain-of-custody. • Data verification and validation procedures.

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Who	What
	<ul style="list-style-type: none">• Data management process.• Individual programs may have additional parameters to record, depending upon the type of sample or analytical technique employed.

Control of Samples

EPP Policy Environmental and effluent samples are controlled to maintain legally defensible data and to prevent cross contamination or data loss. Each environmental sampling/monitoring group or project specifies the requirements for control and tracking of environmental samples.

Implementation The following table lists responsibilities.

Who	What
RRES OIC Group Leaders	Ensures procedures are developed to describe the following, as appropriate or necessary: <ul style="list-style-type: none">• a sample numbering and labeling system that reliably and legibly identifies samples and items• chain of custody requirements• sample holding times• sample volumes required for analysis• storing and shipping requirements• sample status tracking.

Analytical Data Management

EPP Policy All analytical results from environmental or effluent samples are procured from laboratories that endeavor to provide legally defensible, quality-assured data. OICs specify the quality requirements and data package deliverables that will enable the group to defend the data to any outside examination and completely document the circumstances under which it was created. Statements of work for analytical chemistry laboratories are complete and maintained. Analytical chemistry is procured from RRES-Division approved laboratories.

Implementation The following table lists responsibilities.

Who	What
RRES OIC Group Leaders	<p>Develops and provides complete, written statements of work to the contractor laboratory.</p> <p>Maintains up-to-date copies of all analytical procedures and quality plans from each vendor.</p> <p>Receives and evaluates the data packages for completeness.</p> <p>Uses data verification and validation procedures to determine whether data packages received from an analytical laboratory were generated according to contract specifications.</p> <p>Evaluates data against DQO specifications to determine if the data meet the expectations expressed in the specifications.</p> <p>Develops and utilizes procedures to describe the processes for addressing the receipt, verification, processing, storage, and distribution of analytical data.</p> <p>Conducts or requests periodic formal assessments of all analytical chemistry vendors to demonstrate their capability to perform the work and their compliance with requirements.</p> <p>Requires the analytical laboratory to document and maintain successful participation in national performance evaluation programs from EPA-EMSL-LV, DOE-EML, or other accredited organizations.</p> <p>Ensures the following requirements are passed on to the vendor in the contract and/or statement of work:</p> <ul style="list-style-type: none"> • Use only EPA-approved procedures (e.g., 40 CFR Appendix B, Method 114 for radionuclides) or methods that comply with the program’s regulatory drivers. • Do no subcontracting of samples. • Complete all analyses pursuant to existing QA Plan and software procedures compliant with EPA (QA/R-5) or DOE (O 414.1 or 10 CFR 830.120).

Environmental Data Management and Communication

RRES EP Policy

Data that are essential to meet the specifications of project deliverables are managed to ensure validity and security. All environmental programs that collect, analyze, and rely on data for protection decisions will develop plans and procedures for data management that identify requirements for:

- Verification and validation of data and software.
- Security of data (prevention of data loss).

A graded approach is used to determine the level of formality required for data management. Data are released to the public when the data have been verified and validated (assured to meet data quality objectives and analytical chemistry specifications) and are approved by the responsible OIC manager.

Environmental data that may be of special concern of stakeholders and the NMED will be promptly communicated to Laboratory and NNSA management before release.

Implementation The following table lists responsibilities.

Who	What
RRES-DL	Approves and recommends the use of standardized data management procedures and software protocols.
RRES OIC Group Leaders	<p>Identifies the owner of the data and the data/software management system used.</p> <p>Ensures that data generated for the project deliverables are valid and secure.</p> <p>Documents all calculation methods of critical work in a procedure or project plan.</p> <p>Documents the method of data verification, validation, and security in the project plan or implementing procedures.</p> <p>Uses a graded approach and assure that data and software management systems are developed for processes that rely on data to accomplish program goals.</p> <p>Develops and maintains systems for the timely release of environmental data such as web pages, publications, etc.</p> <p>Follows protocols in MOUs between NNSA and the Pueblos.</p> <p>Promptly communicate data (with interpretation and analysis) that may be of special interest to the NMED or other stakeholders in the following order:</p> <ul style="list-style-type: none"> • RRES EPP Manager, Division Leader/or Deputy • ADO, NNSA, Public Affairs, and Legal • NMED, pueblos if deemed necessary • Release to public (expectation is 2 weeks from V&V)

Calibration and Maintenance of Test Equipment

RRES EP Policy EPP technical work that depends upon the accuracy of data is performed using equipment for which the calibration status and limits of accuracy are known and controlled.

Implementation The following table lists responsibilities.

Who	What
RRES OICs	<p>Use qualified persons and/or organizations to calibrate equipment used in EPP project activities as necessary.</p> <p>Develops appropriate procedures to control the calibration, maintenance, accountability, and use of measuring and test equipment. Implementing procedures must satisfy the minimum requirements given in the Laboratory Calibration Program (ESA-MT) and in this section and addresses:</p> <ul style="list-style-type: none">• Specified intervals for re-calibration based on the item's required accuracy, intended use, and frequency of use, item stability characteristics, manufacturer's recommendations, or other conditions affecting performance.• Calibration against a traceable reference standard or physical constant that has accuracy commensurate with the desired tolerance.• Record keeping for in-house calibrations or for instruments verified before use.• Labeling of the equipment to indicate its calibration status and reference to calibration procedure.• Laboratory requirements for calibration given in the Laboratory Calibration Program.

Public Involvement

EPP Policy Specific goals and objectives are developed related to community involvement activities. Costs for community involvement activities will be tracked.

Implementation The following table lists responsibilities.

Who	What
RRES OICs and RRES-EP	In coordination with the Community Relations Office, promotes the benefits of public involvement in EPP programs. <ul style="list-style-type: none"><li data-bbox="623 667 1370 772">• Identifies stakeholders and develops specific goals and objectives to improve public involvement in LANL Environmental Protection Program.<li data-bbox="623 785 1328 854">• Tracks report progress in obtaining goals for public involvement.

Reporting and Compliance Certification

EPP Policy The RRES OICs provide timely and accurate environmental reports as required by applicable regulations and DOE orders and by other contractual requirements. When required, the Associate Director of Operations or other designated manager provides signatures of certification for these reports. For reports to be certified by senior managers, supporting certification memos are prepared by the line organization responsible for the certified work. Support certification memos are maintained as part of the administrative record for the compliance program.

Implementation The following table lists responsibilities.

Who	What
ADO	<p>Acts as senior executive certifying official for institutional environmental protection regulatory documents such as data reports, permit applications, etc.</p> <p>Appoints (in writing) alternate manager officials that are designated to certify environmental protection regulatory documents.</p>
RRES-DL	<p>Acts as the designated senior manager that certifies institutional reports, permit applications, etc., required by environmental protection regulations.</p>
RRES OIC Group Leader	<p>Maintains a list of routine and non-routine reporting deliverables and associated deadlines.</p> <p>Ensures all reports are submitted on time, with appropriate classification and legal reviews.</p> <p>Coordinates and signs memo of certification addressed to RRES-DL or other certification official that supports the quality of data and other information contained in regulatory documents.</p> <p>When designated, serves as the institutional certification official for regulatory reports.</p>

Environmental Protection Support to Emergency Response

RRES –EP Policy The Environmental Protection Program performs specific emergency response functions following the requirements specified in the Laboratory Emergency Management Plan (LIR- 403-00-01.0) and its implementing procedures. Other emergency response functions are conducted following the requirements of this plan, unless specific emergency concerns require additional considerations.

Implementation The following table lists responsibilities.

Who	What
RRES-EP	<p>Identifies and maintains a list of members of the RRES emergency response capability.</p> <p>Assures that RRES OIC groups have appropriate quality plans and procedures for performing emergency response functions.</p> <p>Assures training requirements are met.</p>
RRES OIC Group Leader	<p>Performs as secondary to the crisis management team.</p> <p>Provides Subject Matter Experts to the Emergency Operations Center (EOC) or Emergency Technical Support Center (ETSC) as requested by the Crisis Management Team.</p> <p>Provides consequence assessment and prepare recovery/reentry plans.</p> <p>Provides compliance review of emergency response actions.</p> <p>Ensures capability exists for emergency analyses of environmental samples.</p> <p>Provides technical support to Lab Community Relations representatives for external communications (news media, tribal officials, etc.).</p> <p>Ensures that personnel, equipment, and software are in appropriate readiness for use in emergency response.</p>
RRES-MAQ	<p>Maintains emergency response dispersion modeling software and operational expertise to support the EOC and ETSC.</p> <p>Performs atmospheric dispersion modeling to assess the impact of unplanned releases. Provides meteorological forecasts.</p> <p>Assists with radiological and chemical air emissions calculations.</p> <p>Notifies regulators of environmental releases.</p>
RRES-HWQ	<p>Notifies regulators of environmental releases.</p>

Continued on next page.

Who	What
RRES-SWRC	Notifies regulators of environmental releases.
RRES-Ecology	Provides archeological, biological, and forestry support to emergency field teams.

Dose and Risk Assessment

EPP Policy RRES organizations involved in determining dose and/or risk to the environment from Laboratory operations have established regulatory requirements for all calculations. In those instances where clear regulatory guidance is not available, technically and scientifically defensible methods are used to develop a best estimate of the environmental dose or risk. Methods are documented to the extent that allows other qualified individuals to reconstruct and understand the work.

Implementation The following table lists responsibilities.

Who	What
RRES-DL	Drafts and recommends to the SET Laboratory policy on acceptable levels of environmental impacts from Laboratory operations.
RRES Group Leaders	Conducts dose and risk assessments, within their areas of responsibility, in accordance with the EPP-IMP. Prepares and implements procedures for conducting dose and risk assessments within their areas of responsibility. Provides support to institutional customers by performing dose and risk assessments related to their areas of responsibility. Establishes, with input from affected line organizations, the level of public involvement necessary for a particular assessment.
RRES-ER	Conducts ER project site risk assessments. Fully documents the dose or risk assessment.
RRES-MAQ	Conducts air pathway dose assessments in accordance with 40 CFR 61, Subpart H. Conducts all pathway (ingestion, inhalation, external) dose assessments in accordance with DOE 5400.5. Fully documents the dose assessment.
RRES-HWQ	Conducts water pathway dose assessments in accordance with 40 CFR 141. Fully documents the dose assessment.

Continued on next page.

Who	What
RRES-ECO	Conducts ecological risk assessments (sec 120 of CERCLA/NRDA). Conducts contaminant monitoring program (foodstuff, soil, biota) (DOE Order 5400.1, 5400.5, and 231.1). Fully documents the dose and risk assessment.

Environmental ALARA

EPP Policy RRES will assist in evaluating LANL operations to assure that exposures to the public and releases of radioactive material to the environment are as low as reasonably achievable (ALARA). For LANL sources of radiation exposure to the public, operations are evaluated with ALARA criteria when the dose impact to a member of the public is 3 mrem or greater per year.

Implementation The following table lists responsibilities.

Who	What
RRES-EP	Establishes dose level received by the public requiring ALARA review.
RRES-MAQ	Determines dose pathways that requires ALARA review. Evaluates new and/or modified sources of air emissions and direct penetrating radiation. Identifies facilities/operations having a dose impact to a member of the public of 3 mrem/yr or greater. Works with identified facilities/operations in reviewing operations for ALARA considerations following DOE Order 5400.5 guidance.
RRES-WQH	Works with identified facilities/operations in reviewing operations for ALARA considerations following DOE Order 5400.5 guidance.

Customer Satisfaction

EPP Policy Customer satisfaction and quality service is a primary goal of the EPP. Customers include individuals in line and facility organizations, NNSA, regulators, and other stakeholders. Systematic processes are used to measure and improve customer satisfaction with the products and services of the EPP. The RRES-EP and OICs have a responsibility to assure LANL line and facility customers are satisfied with the products and services of the EPP. In addition, the RRES-EP and OICs have a responsibility to improve and maintain the institutional relationship with NNSA, NMED, EPA and other regulatory bodies regarding EPP services and products.

Implementation The following table lists responsibilities.

Who	What
RRES-EP	Queries customers (as provided by the OICs) regarding OIC and EP performance toward meeting goals and objectives. Meets quarterly with RRES OICs to review performance feedback data. Agrees on actions, objectives, and goals in order to improve customer satisfaction performance of OICs and RRES-EP. Makes recommendations to upper management for issues that require senior management action.
RRES OIC Group Leaders	Maintains lists of customers and stakeholders that are direct recipients of the OIC's services and products. Meets quarterly with the RRES-EP to review performance feedback data and agree on actions, objectives, and goals to improve customer satisfaction performance of the OIC.

Section 6 Design

Design

EPP Policy RRES OICs assure design activities will be conducted in accordance with established and approved procedures, incorporating and implementing sound engineering/scientific principles and appropriate standards.

Implementation The following table lists additional responsibilities for Environmental Programs.

Who	What
RRES OIC Group Leader	Ensures that applicable design requirements for the project are specified in any project plans to ensure that design process meets the requirements of the Laboratory LPR Integrated Quality Management (LPR 308-00-00). Develops and implements appropriate procedures for design activities. Assures review by qualified engineering design experts for critical equipment.

Section 7 Procurement

Procurement

EPP Policy RRES groups are responsible for coordinating their own procurement activities. The procurement process is be planned and controlled to ensure that the end-user's requirements are accurately, completely, and clearly communicated to the suppliers. RRES personnel work with RRES Business Operations (BUS) purchasing and procurement personnel to ensure that procurement procedures (LIR 308-00-04) are followed and procurement activities are controlled.

Implementation The following table lists additional responsibilities for Environmental Programs.

Who	What
RRES OIC Group Leader	Ensures procurements follow BUS procurement standards.

Section 8

Inspection and Acceptance Testing

Inspection and Acceptance Testing

EPP Policy RRES Division employees that support the EPP perform appropriate inspections and tests on items critical to the quality of RRES processes and products. Any required inspections and tests are specified in project plans or implementing procedures.

Implementation The following table lists responsibilities.

Who	What
RRES OIC Group Leader	Ensures that project plans identify the items that require testing or inspection, the organization or team member to perform the inspection, methods and equipment to be used, and the level of documentation. Establishes procedures providing for inspections that meet the requirements of the Laboratory LPR Integrated Quality Management (LPR 308-00-00). Ensures that standards and measuring and test equipment used to verify acceptability are calibrated and controlled.

Section 9

Management Assessment

Management Assessments

EPP Policy RRES-EP and OIC management personnel observe the activities of the workforce to ensure they meet requirements contained in the RRES-EP quality system. This includes assessing results, identifying process improvements, taking effective corrective actions, and sharing lessons learned. Assessments are based upon documented plans and are tailored to meet the needs of the assessing and the assessed organizations. Assessment results are documented and reported to the responsible line managers, who take appropriate corrective actions.

Implementation The following table lists responsibilities.

Who	What
RRES OIC Group Leader and RRES-EP	Plans and conducts periodic self-assessments of the management of projects within the group or program to evaluate the effectiveness of the team in achieving the group or program mission. Documents the results of the management assessment in a assessment report. Initiates a deficiency for deviation from requirements found during the assessment. Oversees resolution and correction of all problems found during management assessments.

Section 10

Independent Assessment

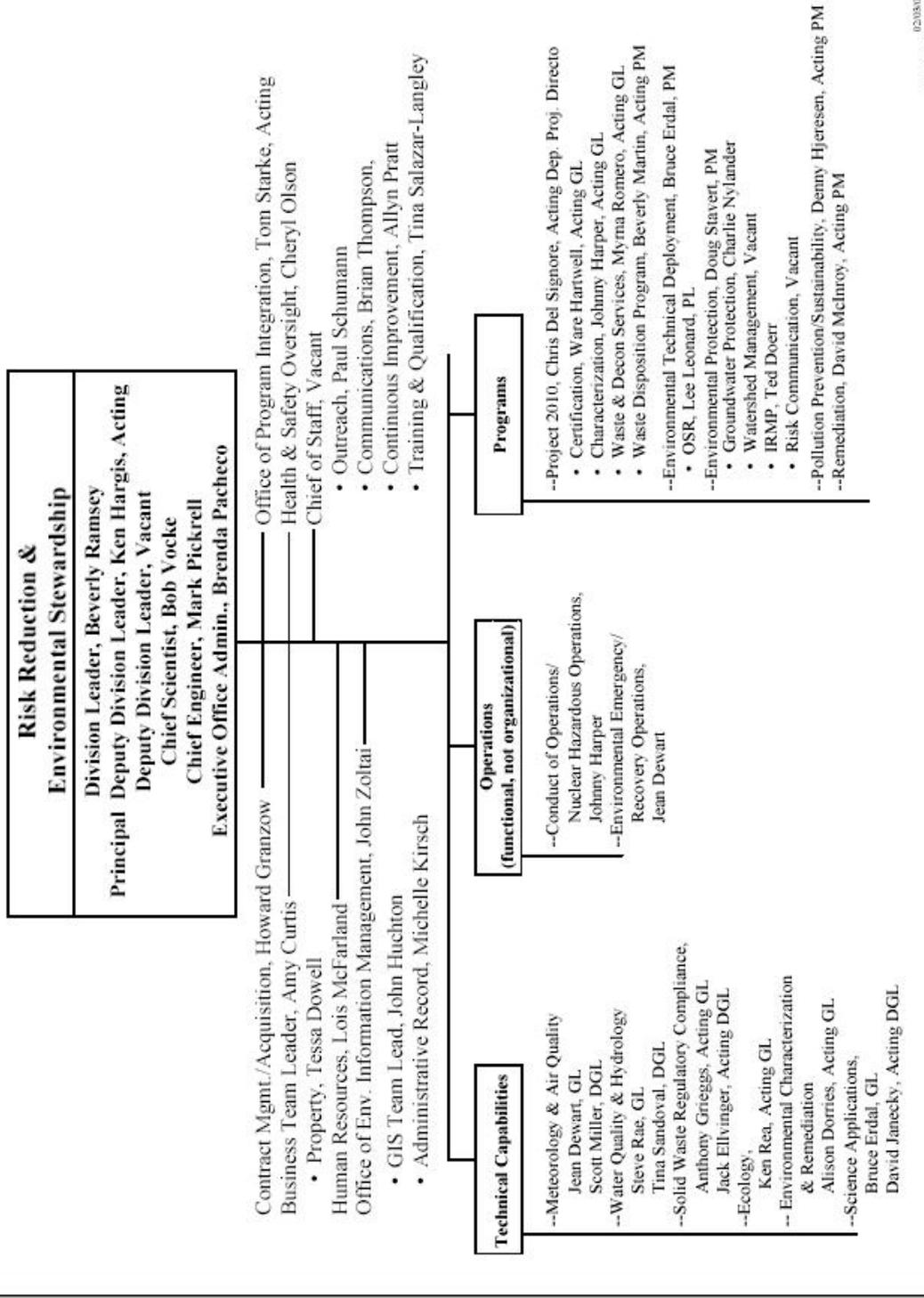
Independent Assessments

EPP Policy RRES-EP and OIC management initiates periodic independent assessments in order to verify compliance with external regulatory drivers, LANL requirements and all aspects of the EPP-IMP. To evaluate the effectiveness of the quality program trained and technically knowledgeable personnel, not having direct responsibility for the areas they are assessing, conduct assessments in accordance with written plans or procedures.

Implementation The following table lists responsibilities.

Who	What
RRES-EP and OIC Group Leader	Schedules and coordinates independent assessment to meet external regulatory or RRES requirements. Ensures assessment is conducted by personnel independent of RRES-EP Programs and Groups. Assures assessments are conducted according to written plans and scopes. Tracks and corrects findings.

APPENDIX A Organization Chart



Appendix B

References

- Title 40 Code of Federal Regulations Part 61, Subpart H, "National Emission Standards for Emissions of Radionuclides Other Than Radon from Department of Energy Facilities," December 15, 1989
- Title 40 Code of Federal Regulations Part 141, "National Primary Drinking Water Regulations," July 7, 2001
- DOE Order 231.1, "Environment, Safety, and Health Reporting," issued 9/30/95, changed November 7, 1996
- DOE Order 414.1A, "Quality Assurance," changed July 12, 2001 (supersedes DOE Order 5700.6C, "Quality Assurance")
- DOE Order 450.1, "Environmental Protection Program," approved January 15, 2003
- DOE Policy 450.1, "Environment, Safety And Health Policy For The Department Of Energy Complex," June 15, 1995
- DOE Order 5400.5, "Radiation Protection of the Public and the Environment," 01/07/1993
- EPA QA/G-4, "Guidance for the Data Quality Objectives Process," final, September 1994
- EPA QA/R-5, "EPA Requirements for Quality Assurance Project Plans for Environmental Data Operations," Interim Final, January 1994
- LA-UR-98-2837, "Integrated Safety Management System Description Document," Los Alamos National Laboratory
- "Laboratory Calibration Program Handbook," Los Alamos National Laboratory, February 18, 2000 (ESA-MT)
- LPR 308-00-00, "Integrating Quality Management," Laboratory Performance Requirement
- LPR 404-00-00, "Environmental Protection," Laboratory Performance Requirement
- LIR 308-00-02, "Laboratory Records Management," Laboratory Implementation Requirement
- LIR 308-00-04, "Procurement", Laboratory Implementation Requirement
- LIR 403-00-01, "Laboratory Emergency Management," Laboratory Implementation Requirement